

CLAIMS

1. A method of digital image magnification in a graphical user interface (GUI), the method comprising:

identifying a selected region of a first image adjacent to a cursor in the GUI;

forming a magnified image including an enlarged version of the first image located in the selected region;

superimposing the magnified image over the first image such that the magnified image masks the selected region; and

superimposing the cursor over the magnified image to form a second image.

2. The method according to Claim 1, wherein the magnified image has a width equal to a width of the GUI, thereby enhancing the readability of the text in the first image.

3. The method according to Claim 1, wherein a location identified by the cursor relative to the magnified image is co-located with a location identified by the cursor relative to the first image.

4. The method according to Claim 3, wherein a user visually interacting with a magnified interface element at the location identified by the cursor relative to the magnified image actually interacts with an interface element at the location identified by the cursor relative to the first image.

5. The method according to Claim 1, wherein identifying the selected region comprises:

determining Cartesian coordinate data identifying a location of the cursor; and

calculating upper and left boundaries of the selected region based on the Cartesian coordinate data.

6. The method according to Claim 5, wherein calculating the left boundary comprises:

 multiplying a distance from the cursor to a left boundary of the magnified image by a width of the selected region to form a first factor;

 dividing the first factor by a width of the magnified image to form a second factor; and

 subtracting the second factor from an X Cartesian coordinate of the cursor.

7. The method according to Claim 5, wherein calculating the upper boundary comprises:

 multiplying a distance from the cursor to a upper boundary of the magnified image by a height of the selected region to form a third factor;

 dividing the third factor by a height of the magnified image to form a fourth factor; and

 subtracting the fourth factor from a Y Cartesian coordinate of the cursor.

8. The method of Claim 1, wherein the second image is displayed within a television safe area on a display screen.

9. The method of Claim 1, further comprising alpha blending the first image with the magnified image, such that the first image shows through the magnified image.

10. A method of digital image magnification in a graphical user interface (GUI), the GUI including a first image and a

cursor superimposed over the first image and movable on the first image by manipulation of an input device, the method comprising:

determining Cartesian coordinate data identifying a first point on the first image located under the cursor;

forming a magnified image including an enlarged version of a selected region surrounding the identified first point;

superimposing the magnified image over the first image such that a second point on the magnified image screen corresponds to the first point on the first image; and

superimposing the cursor over the magnified image,

wherein the second point relative to the magnified image corresponds to the first point relative to the first image.

11. The method of Claim 10, wherein the magnified image is superimposed over the first image such that a first edge of the magnified image extends to a first edge of the first image and a second edge of the magnified image extends to a second edge of the first image.

12. The method of Claim 10, wherein the magnified image, first image, and the cursor are displayed within a television safe area on a display screen.

13. The method according to Claim 10, wherein a user visually interacting with a magnified interface element at the second point actually interacts with an interface element at first point.

14. A method of magnifying a background image in a graphical user interface (GUI), the GUI including image data for generating the background image on a display, and cursor position

data for positioning a cursor over the background image, the method comprising:

identifying a first selected point of the background image that coincides with the cursor position data;

forming a magnified image using the image data corresponding to a selected region located adjacent to the first selected point, wherein the magnified image includes a second selected point that coincides with the first selected point; and

superimposing the magnified image between the background image and the cursor such that the cursor is located directly over both the first selected point of the background image and the second selected point of the magnified image.

15. The method of Claim 14, wherein the magnified image is superimposed between the background image and the cursor such that a first edge of the magnified image extends to a first edge of the background image and a second edge of the magnified image extends to a second edge of the background image.

16. The method of Claim 14, wherein the magnified image, background image, and the cursor are displayed within a television safe area on a display screen.

17. The method according to Claim 14, wherein a user visually interacting with a magnified interface element at the second selected point actually interacts with an interface element at first selected point.

18. A system for magnifying an image, the system comprising:

means for identifying a selected region of a first image adjacent to a cursor in the GUI;

means for forming a magnified image including an enlarged version of the first image located in the selected region;

means for superimposing the magnified image over the first image such that the magnified image masks the selected region;
and

means for superimposing the cursor over the magnified image to form a second image.

19. The system according to Claim 18, wherein the magnified image has a width equal to a width of the first image, thereby enhancing the readability of the text in the first image.

20. The system according to Claim 18, wherein a location identified by the cursor relative to the magnified image is co-located with a location identified by the cursor relative to the first image.

21. The system according to Claim 18, wherein a user visually interacting with a magnified interface element at the location identified by the cursor relative to the magnified image actually interacts with an interface element at the location identified by the cursor relative to the first image.